

Issuing System Commands from a Natural Program

The Natural user exit "SHCMD" can be used to issue a system command within a Natural program.

Format:

CALL 'SHCMD' *command* [*option*]

Parameters:

command

Command is to be executed by the operating system. To execute commands (like DIR for directory or DEL for delete) you have to specify the system command interpreter as well. For more information, see examples below.

option

Note:

This parameter is optional.

Option describes how the command should be executed.

The following options are available:

- ASYNCH
- NOSCREENIO
- SYNCH (This is the default option.)

Return Codes:

The following return code values are available:

Return Code	Description
0	Command successfully executed
4	Illegal SHCMD parameter specified
All others	Operating-system-dependent error code

Parameter Options

ASYNCH

If option 'ASYNCH' is set, Natural does not wait until the command is completely executed. This kind of processing is named asynchronous processing.

NOSCREENIO

Option 'NOSCREENIO' is used to hide the output generated by the command. The hidden output is redirected to the null device.

SYNCH

If option 'SYNCH' is set, Natural waits until the command is completed. This kind of processing is named synchronous processing and is set by default.

Note:

Option "ASYNCH" and "SYNCH" may be not set at the same time.

Examples:

Executing system command DIR to view a directory:

```
CALL "SHCMD" "CMD.EXE /C DIR"
```

Retrieve the return code by using the Natural function RET:

```
RESET rc (I4)

CALL "SHCMD" "CMD.EXE /C DIR"

rc = RET( "SHCMD" ) /* retrieve return code

IF rc <> 0 THEN /* in case of an error

DISPLAY "Error occurred during SHCMD" /* display an error message
```

Execute a command which includes blanks within the command by enclosing the command with quotation marks. The following example executes Microsoft Excel.

```
RESET #cmd (A253)

MOVE ' "C:\Program Files\Microsoft Office\Office\EXCEL.EXE" ' to #cmd

CALL "SHCMD" #cmd "ASYNCH"
```

In this case, parameter TQ (translate quotation marks) has to be OFF, otherwise the quotation marks have been removed. To be independent from the TQ parameter, use the hexadecimal ASCII code of quotation marks (H'22') and append it at the beginning and the end of the command. The following example demonstrates this:

```
RESET #cmd (A253)
```

```
MOVE H'22' - "C:\Program Files\Microsoft
```

```
Office\Office\EXCEL.EXE" - H'22' to #cmd
```

```
CALL "SHCMD" #cmd "ASYNCH"
```